



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5291
(801) 359-3940 (Fax)

January 3, 1997

TO: Terry McParland, BLM State Office

FROM: Tony Gallegos, DOGM *dag*

RE: Review of Reclamation Surety Estimate for Summo USA Corp. Lisbon Valley Copper Project M/037/088 (BLM UTU-72499)

Please review the attached information and contact me at your earliest convenience to discuss any concerns. The surety amount currently estimated for Summo's 10-year life of mine disturbance of 1,048 acres is \$6,213,225 (2002-\$). This amount provides an average dollar per acre amount of \$5,928.65. Summo is proposing to post \$1,863,967.50 (30% of the total amount) for the first three years of operation or 314.4 acres of disturbance. Summo will not actually post the surety until sometime after the BLM's ROD is issued.

The Division is planning to present the proposed form and amount of surety to the Board at the January 22, 1997 hearing, unless their are significant BLM concerns. Summo is aware of the Board of Oil, Gas and Mining's general policy of requiring a surety based on a five year renewal. Summo is requesting a conditional approval from the Board. The form and amount of surety would be approved conditioned upon the Division's actual receipt of the approved original surety documents at a future date. After receipt of these documents the Division would then issue final approval. Final approval of this proposal would essentially approve of the entire permit (1,048 acres), but only allow Summo to actually disturb 314.4 acres until the surety is increased or areas are reclaimed.

Attached are the following items which I have been reviewing during December to support the current surety estimate proposed by Summo:

- (1) Reclamation Costs prepared by The Winters Co. of Tucson, Arizona dated 18-Nov-96.
- (2) Surety Calculation Issues Requiring Additional Clarification prepared by DOGM dated 12/10/96. (*DOGM comments on item (1)*)
- (3) Fax copy of Reclamation Costs prepared by the Winters Co. Dated 18-Dec-96 with notes in the margins by DOGM. (*this estimate supersedes the estimate in item (1)*)
- (4) Response letter from Gochnour & Associates to DOGM dated December 26, 1996. (*this is a response to item (2)*).

jb
Attachments
sumo-blm.mem



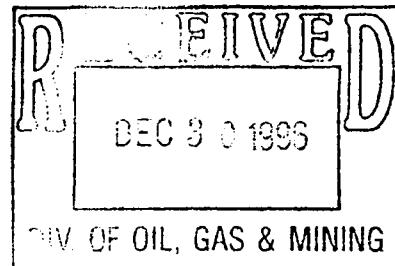
GOCHNOUR & ASSOCIATES, INC.

P.O. Box 3207
Englewood, CO 80155

Tel. (303) 770-7580
Fax. (303) 721-9298

December 26, 1996

Mr. Anthony Gallegos
State of Utah
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801



RE: Summo USA Corporation, Lisbon Valley Project

Mr. Gallegos:

Pursuant to my earlier commitment to provide you with additional information, please find a written explanation for reclamation calculations submitted to Division of Oil Gas and Mining (Division) for the Lisbon Valley Project. The responses provided address specific questions the Division relayed to me on December 10, 1996.

PAGE ONE OF ESTIMATE

Question #1. - The acreage difference was due to increase in areas associated with regrading. These numbers have been made the same to minimize/eliminate confusion.

Question #2. - The main reason there was a difference dealt with regrading vs. the perimeter liner and buffer zone around the pad. The smaller acreage deals with the actual area of (ore) neutralization, material covering, etc.

PAGE TWO OF ESTIMATE

Question #3. - The primary difference in haul road acreage deals with acres inside pits, on the waste dumps and other areas that have disturbance accounted for (ie., leach pad, crusher area, stockpile, etc.). The smaller number associated with the reclamation treatments map is for stand alone haul roads between facilities.

Question #4. - Line Item 42 deals with revegetation of the ditches/sediment ponds and the work necessary to make the sediment ponds free draining once reclamation activities are complete.

Question #5. - The costs associated with Line Item 22 on this page have been removed. The minor disturbance associated with power line construction will be reclaimed before Utah Power and Light (UPL) leaves the site as part of the contract to construct. In addition, UPL has requested that this line remain after mining activities have ceased, in order to continue to provide service to other (and future) users in the Lisbon Valley area.

PAGE THREE OF ESTIMATE

Question #6. - Line Item 21 deals with dismantling and removal of structures. Debris of no value that does not represent an environmental hazard (ie., concrete) will be broken up and buried in place.

Question #7. - Line Item 24 has been removed. This item was a carry over from the last estimate/bid that our contractor (The Winters Company) had to provide.

Question #8. - Line Item 26, Engineering deals with the preparation of bid documents, drawings, and minor permits (equipment hauling, etc.). This has been budgeted at ~5% of the reclamation estimate.

**SURETY CALCULATION ISSUES
REQUIRING ADDITIONAL CLARIFICATION
SUMMO - LISBON VALLEY COPPER PROJECT M/037/088
12/10/96 - PAGE ONE**

The following is a list of bond calculation issues discussed over the phone with Pat Gochnour on this date. All comments refer to the reclamation cost estimate provided by Summo which was prepared by The Winters Co., Tucson Arizona, dated 18-Nov-96. Please note that this list is not intended to be all inclusive in regard to the surety calculation issues to be resolved.

PAGE ONE OF THE ESTIMATE

Lines, 3, 10, 17, and 24. Acreage figures shown in the description column differ from the acreage figures shown in the quantity "QTY" column. This may be due to an increase in area associated with regrading to a lesser slope angle. Please explain.

Line 31, Leach Pad-276 acres. The acreage in the description column for the leach pad (276 acres) differs from the acreage shown in the quantity column (265). Please explain.

PAGE TWO OF THE ESTIMATE

Line 15, Haul Roads-40 acres. The acreage figure for Haul Roads under the description column (40 acres) differs from the acreage in the table on the reclamation treatments map (33 acres). Please explain.

Line 42, Surface Drainage Diversion Ditches. What do the items listed under this heading represent? Diversion ditches are constructed during operations and proposed to remain after final reclamation. Do these line items represent regrading and revegetation of the diversion ditches?

Line 22, Power Line-64 acres. Reclamation of the powerline corridor was described as being performed during the installation of the powerline. Also, the powerline was included as an item which was proposed to remain after final reclamation. A variance allowing the powerline to remain after reclamation would allow the elimination of this line item from the Division's reclamation surety requirement.

PAGE THREE OF THE ESTIMATE

Line 21, Plant Dismantling. Does this line item cover dismantling and removal of structures and debris or does this represent dismantling and onsite burial only?

Line 24, Contractor Gross Receipts Tax. Please explain what this line item represents.

Line 26, Engineering. Please explain the tasks which are included in this line item.

Line 28, Owner's Cost. Please explain the tasks or contingencies which are included in this line item.

FILENAME: (SUM)VR2-XLWRECLAIM.1
PROJECT: SUMMO CORP., LISBON VALLEY COPPER
DESCRIPTION:RECLAMATION COSTS
DATE: 18-Nov-96

THE WINTERS CO
TUCSON, ARIZONA
CAPITAL COST ESTIMATES

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FILENAME: RECC2.XLS
PROJECT: SUMMO CORP., LISBON VALLEY COPPER
DESCRIPTION: RECLAMATION COSTS
DATE: 18-Nov-96

THE WINTERS CO
TUCSON, ARIZONA
CAPITAL COST ESTIMATE

REV 0
THE WINTERS CO
TUCSON, ARIZONA
CAPITAL COST ESTIMATE

FILENAME: SUMRECC.XLS
PROJECT: SUMMO CORP., LISBON VALLEY COPPER
DESCRIPTION: SUMMARY OF RECLAMATION COSTS
DATE: 18-Nov-96

REV 0

THE WINTERS CO TUCSON, ARIZONA CAPITAL COST ESTIMATE									
SUMMARY OF RECLAMATION COSTS FOR LISBON VALLEY				UNIT LABOR: US \$/HR		LABOR HOURS THIS PAGE		SUBTOTALS:	
1	DESCRIPTION	QTY	UNIT	LABOR HR	UNIT	MATERIAL	EXTENDED COSTS	RENTAL	TOTAL
1	DIRECT COSTS								
2	MOBILIZATION AND DEMOBILIZATION	1	LOT						
3	SUMMARY COST-L-EACH PAD AND WASTE DUMPS	1	LOT						
4	SUMMARY COST-MISC. SURFACE AREAS	1	LOT						
5	TOTAL DIRECT COSTS								
6	INDIRECT COSTS								
7	PLANT DISMANTLING*	1	LOT						
8	*THIS ASSUMES NO SALVAGE VALUE.								
9	CONTRACTOR GROSS RECEIPTS TAX	1	LOT						
10	ENGINEERING	1	LOT						
11	OWNER'S COST	1	LOT						
12	CONSTRUCTION MANAGEMENT	1	LOT						
13	CONTINGENCY (10% OF TOTAL DIRECT COSTS)	1	LOT						
14	TOTAL INDIRECT COSTS								
15	GRAND TOTAL COSTS								
16	TOTAL COST WITH ESCALATION @ 2.58%/YEAR FOR 5 YEARS	1	LOT						
17	TOTAL INCLUDING ADJUSTMENTS								
18	PROFIT @ 0%								
19									
20									
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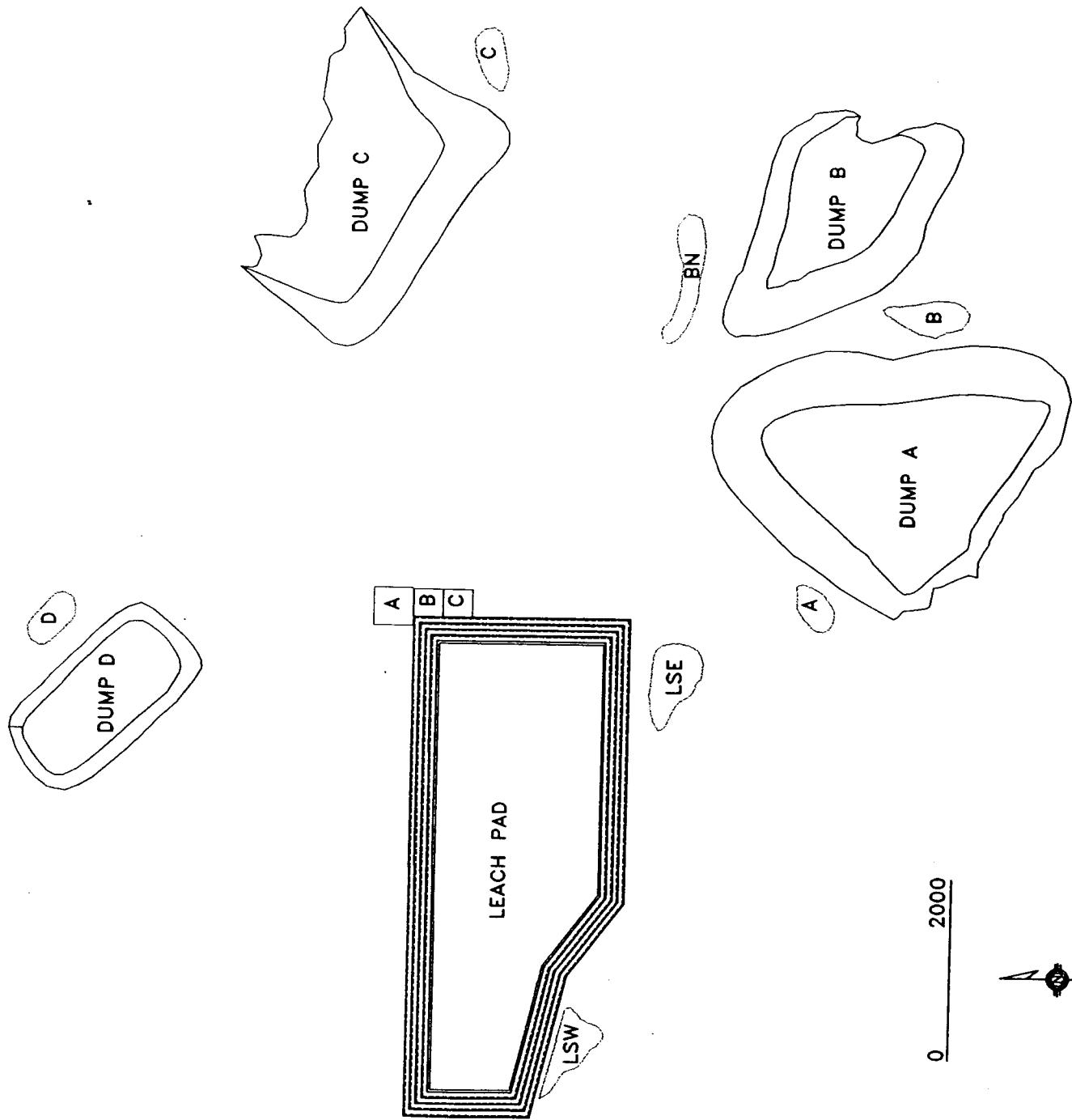
SUMMO MINERALS
ESTIMATED AREA CALCULATIONS

AREA	SURFACE AREA OF OBJECT (AUTOCAD) (SQ FT)	PLAN SURFACE AREA OF SIDE SLOPES (SQ FT)	SLOPE AREA FACTOR	ESTIMATED TRUE SLOPED AREA (SQ FT)	TOTAL RECLAIMABLE SURFACE (SQ FT)	DEPTH OF TOPSOIL COVER (FT)	TOTAL TOPSOIL NEEDED (CU FT)	TOTAL TOPSOIL NEEDED (CU YDS)
A	4,108,000	3,870,000	1.076	4,164,000	8,272,000	1	8,272,000	306,000
B	1,775,000	2,160,000	1.076	2,324,000	4,099,000	1	4,099,000	152,000
C	3,098,000	1,996,000	1.076	2,148,000	5,246,000	1	5,246,000	194,000
D	1,531,000	881,000	1.076	948,000	2,479,000	1	2,479,000	92,000
LEACH PAD	7,561,000	3,988,000	1.12	4,467,000	12,028,000	1	12,028,000	445,000
POND								
A	178,000			178,000		1	178,000	7,000
B	97,000			97,000		1	97,000	4,000
C	97,000			97,000		1	97,000	4,000
TOPSOIL PILES								
A	146,000			146,000		1	146,000	5,000
B	252,000			252,000		1	252,000	9,000
BN	322,000			322,000		1	322,000	12,000
LSE	367,000			367,000		1	367,000	14,000
LSW	278,000			278,000		1	278,000	10,000
C	180,000			180,000		1	180,000	7,000
D	189,000			189,000		1	189,000	7,000
TOTAL	20,179,000	12,895,000		14,051,000	34,230,000		34,230,000	1,268,000

THE WINTERS COMPANY
TUCSON, ARIZONA
SUMMO MINERALS
LISBON VALLEY COPPER PROJECT

ESTIMATED AREA
CALCULATIONS

PLOT DATE 11/12/94
DRAWN BY K. CORRA
ROUTE NUMBER



FILENAME: [SUMLVRCC2.XLW]RECLAIM 1
PROJECT: SUMMO CORP., LISBON VALLEY
DESCRIPTION:RECLAMATION COSTS
DATE: 18-Nov-96

REV 0

**THE WINTERS CO
TUCSON, ARIZONA
CAPITAL COST ESTIMATE**

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THE WINTERS CO TUCSON, ARIZONA CAPITAL COST ESTIMATE						
DESCRIPTION		QTY	UNIT	LABOR HRS PER UNIT	UNIT COSTS #REF! LABOR	EXTENDED COSTS SUBTOTAL
1	RECLAMATION OF WASTE DUMP 8					
2	WASTE DUMP "A"-188 ACRES					
3	SCARIFY TOP (FLAT) AREA	456,444	SY		0.20	91,289
4	12.5" SOIL ON TOP OF DUMP	159,756	CY		1.25	199,694
5	12.5" SOIL ON SLOPE	161,933	CY		1.25	202,417
6	SEED ENTIRE SURFACE	190	ACRE		1.74	33,088
7	TOTAL-WASTE DUMP "A" RECLAMATION					526,488
8	WASTE DUMP "B"-92 ACRES					
9	SCARIFY TOP (FLAT) AREA	197,222	SY		0.20	39,444
10	12.5" SOIL ON TOP OF DUMP	69,028	CY		1.25	86,285
11	12.5" SOIL ON SLOPE	90,378	CY		1.25	112,972
12	SEED ENTIRE SURFACE	94	ACRE		1.74	16,396
13	TOTAL-WASTE DUMP "B" RECLAMATION					255,097
14	WASTE DUMP "C"-118 ACRES					
15	SCARIFY TOP (FLAT) AREA	344,222	SY		0.20	68,844
16	12.5" SOIL ON TOP OF DUMP	120,478	CY		1.25	150,597
17	12.5" SOIL ON SLOPE	83,533	CY		1.25	104,417
18	SEED ENTIRE SURFACE	120	ACRE		1.74	20,984
19	TOTAL-WASTE DUMP "C" RECLAMATION					344,842
20	WASTE DUMP D-66 ACRES					
21	SCARIFY TOP (FLAT) AREA	170,111	SY		0.20	34,022
22	12.5" SOIL ON TOP OF DUMP	59,539	CY		1.25	74,424
23	12.5" SOIL ON SLOPE	36,867	CY		1.25	46,083
24	SEED ENTIRE SURFACE	57	ACRE		1.74	9,916
25	TOTAL-WASTE DUMP D RECLAMATION					164,445
26	LEACH PAD-276 ACRES					
27	RINSE HEAP LEACH AREA 1 YEAR	1	YR		20,095	20,095
28	AREA OF TOP	840,111	SY			
29	AREA OF SLOPE	496,333	SY			
30	12" CLAY CAP ON TOP	280,037	CY			
31	12" CLAY CAP ON SLOPE	165,444	CY		2.50	700,093
32	12" CRUSHED ROCK ON TOP	280,037	CY		2.50	413,611
33	12" CRUSHED ROCK ON SLOPE	165,444	CY		2.50	700,093
34	12" SOIL ON TOP	291,039	CY		2.50	413,611
35	12" SOIL ON SLOPE	173,717	CY		1.25	367,549
36	SEED ENTIRE SURFACE	265	ACRE		1.74	217,146
37	TOTAL-LEACH PAD RECLAMATION					46,196
38						
39						
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44						
45						
46						
47						
48						
49						
50	TOTAL PROFIT	50				0%
51	TOTAL INCLUDING PROFIT					
52						

FILENAME: RECC2.XLS
PROJECT: SUMMO CORP., LISBON VALLEY COPPER
DESCRIPTION:RECLAMATION COSTS

THE WINTERS CO
TUCSON, ARIZONA
CAPITAL COST ESTIMATE

11:41 AM

FILENAME: SUMRECC.XLS
 PROJECT: SUMMO CORP., LISBON VALLEY COPPER
 DESCRIPTION: SUMMARY OF RECLAMATION COSTS
 DATE: 18-Nov-96

Remarks

THE WINTERS CO TUCSON, ARIZONA CAPITAL COST ESTIMATE						
SUMMARY OF RECLAMATION COSTS FOR LISBON VALLEY			SUBTOTALS:			TOTAL
DESCRIPTION	QTY	UNIT	LABOR HR PER UNIT	UNIT MATL	LABOR EQUIPMENT	MATERIAL SUBCONT RENTAL LABOR SUBCONT RENTAL
1 DIRECT COSTS						
2 MOBILIZATION AND DEMOBILIZATION	1	LOT				35,000
3 SUMMARY COST-LEACH PAD AND WASTE DUMPS	1	LOT				4,169,265
4 SUMMARY COST-MISC. SURFACE AREAS	1	LOT				559,655
5 TOTAL DIRECT COSTS						4,763,920
10						
11						
12						
13						
14						
15						
16						
17						
18						
19 INDIRECT COSTS						
20 PLANT DISMANTLING*	1	LOT				450,000
21 THIS ASSUMES NO SALVAGE VALUE.						
22 CONTRACTOR GROSS RECEIPTS TAX	1	LOT				164,355
23 ENGINEERING	1	LOT				238,196
24 OWNER'S COST	1	LOT				142,918
25 CONSTRUCTION MANAGEMENT	1	LOT				142,918
26 CONTINGENCY (10% OF TOTAL DIRECT COSTS)	1	LOT				476,392
33 TOTAL INDIRECT COSTS						1,614,778
34 GRAND TOTAL COSTS						6,378,698
38 TOTAL COST WITH ESCALATION @ 2.58% YEAR FOR 5 YEARS	1	LOT				7,245,119
42 TOTAL						7,245,119
43 TOTAL INCLUDING ADJUSTMENTS						7,245,119

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 18-Nov-96

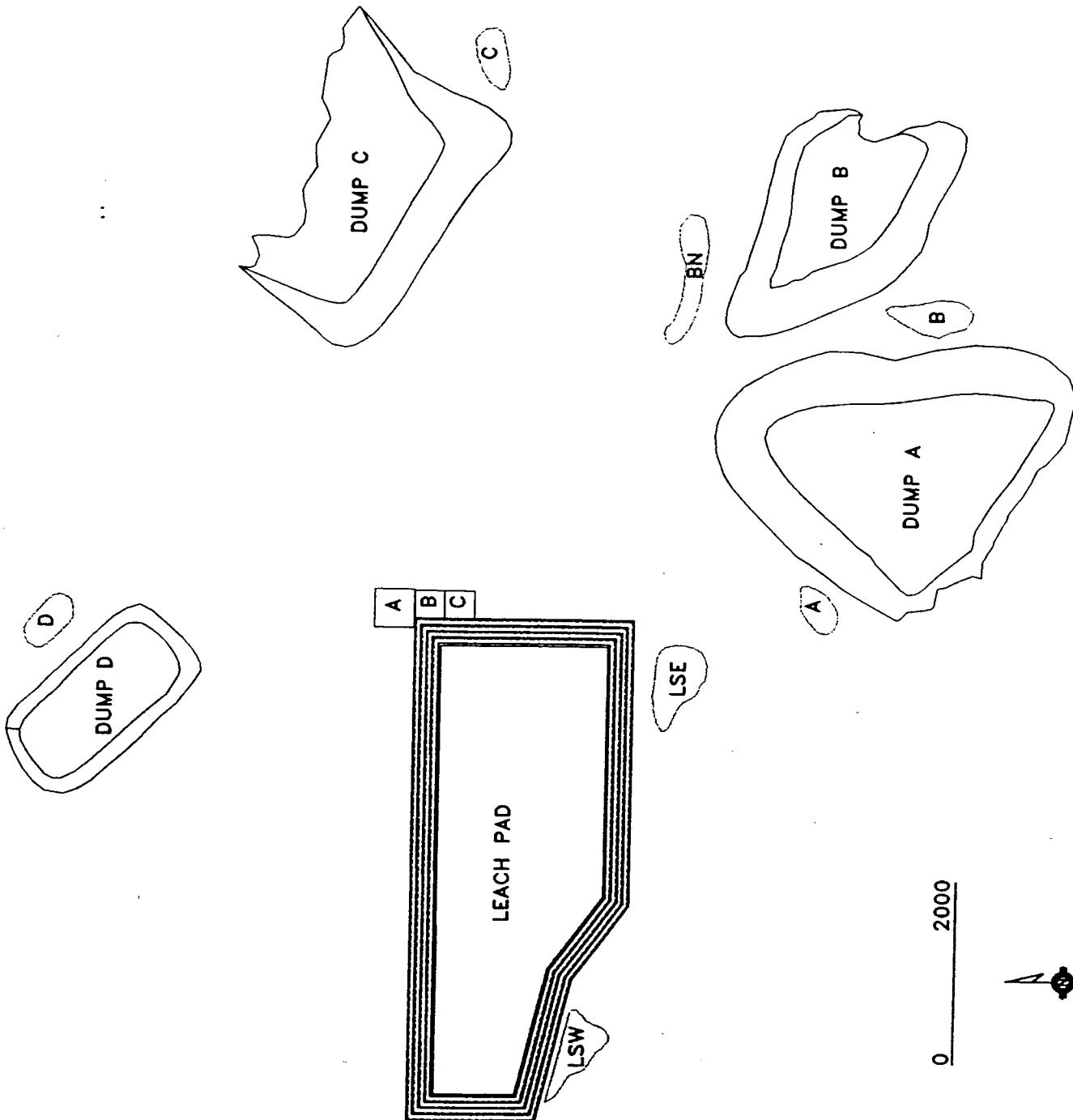
SUMMO MINERALS
ESTIMATED AREA CALCULATIONS

AREA	SURFACE AREA OF OBJECT (AUTOCAD) (SQ FT)	PLAN SURFACE AREA OF SIDE SLOPES (SQ FT)	SLOPE AREA FACTOR	ESTIMATED TRUE SLOPED AREA (SQ FT)	TOTAL RECLAMABLE SURFACE (SQ FT)	DEPTH OF TOPSOIL COVER (FT)	TOTAL TOPSOIL NEEDED (CU FT)	TOTAL TOPSOIL NEEDED (CU YDS)
WASTE DUMP								
A	4,108,000	3,870,000	1.076	4,164,000	8,272,000	1	8,272,000	306,000
B	1,775,000	2,160,000	1.076	2,324,000	4,099,000	1	4,099,000	152,000
C	3,098,000	1,996,000	1.076	2,148,000	5,246,000	1	5,246,000	194,000
D	1,531,000	881,000	1.076	948,000	2,479,000	1	2,479,000	92,000
LEACH PAD	7,561,000	3,988,000	1.12	4,467,000	12,028,000	1	12,028,000	445,000
POND	BASE AREA							
A	178,000				178,000	1	178,000	7,000
B	97,000				97,000	1	97,000	4,000
C	97,000				97,000	1	97,000	4,000
TOPSOIL PILES	FOOT AREA							
A	146,000				146,000	1	146,000	5,000
B	252,000				252,000	1	252,000	9,000
BN	322,000				322,000	1	322,000	12,000
LSE	367,000				367,000	1	367,000	14,000
LSW	278,000				278,000	1	278,000	10,000
C	180,000				180,000	1	180,000	7,000
D	189,000				189,000	1	189,000	7,000
TOTAL	20,179,000				14,051,000		34,230,000	1,268,000

THE WINTERS COMPANY
TUCSON, ARIZONA
SULAMO MINERALS
LISBON VALLEY COPPER PROJECT

ESTIMATED AREA
CALCULATIONS

PLOT DATE 11/1/94
DRAWN BY K. DENNA
REVISION NUMBER



FAX TRANSMISSION

GOCHNOUR & ASSOCIATES, INC.

P.O. 3207

ENGLEWOOD, CO 80155

(303)-770-7580

FAX: (303)-721-9298

To: Tony Gallegos - UDOG&M Date: December 18, 1996
Fax #: 801-359-3940 Pages: 4, including this cover sheet.
From: Lee "Pat" Gochnour
Subject: Reclamation Bond Calculation - Lisbon Valley Project

COMMENTS:

Mr. Gallegos:

FAX TRANSMISSION

GOCHNOUR & ASSOCIATES, INC.

P.O. 3207

ENGLEWOOD, CO 80155

(303)-770-7580

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To: Tony Gallegos - UDOG&M **Date:** December 18, 1996
Fax #: 801-359-3940 **Pages:** 4, including this cover sheet.
From: Lee "Pat" Gochnour
Subject: Reclamation Bond Calculation - Lisbon Valley Project

COMMENTS:

Mr. Gallegos:

Attached please find the latest version of the Bond Estimate (Reclamation Costs) calculations for the above referenced project. This should address all of the issues raised in your most recent correspondence to me on the subject. Please review this information. If you have additional questions please give me a call at the listed number. Once this is finalized, I will develop the Draft Reclamation Contract and Bond Form for your review.

On a related matter, I should have the Diversion System information for Tom Munson by the end of the day.

Thanks,

Pat G.

Pat G.!

cc - Bob Prescott - Sumino

DEC 18 '96 WED 4:38:32

THE WINTER CO.

120 721 5853

P.M.D.

$$\frac{15Y}{1SF} \quad \frac{15Y}{9SF} \quad \frac{45,756.00}{1ACRE} = \frac{#768}{ACRE} SCARIFY$$

FILE NAME: SUMMERCLOUD.CPY
 PROJECT: SUMMOCO "JESON VALLEY COPPER"
 DESIGN NON RECLAMATION COSTS
 DATE: 18-Dec-96

REV C

THE WINTER CO.
 TUCSON, ARIZONA
 CAPITAL COST ESTIMATE

DESCRIPTION	UNIT	JACR HR	UNIT COSTS	EXTEND COSTS				
	PER UNIT	HIRE	LABOR	EQUIPMENT	SUPPLNT	MATERIAL	ACCR RENTAL	SUBTOTAL
1 RECLAMATION OF WASTE DUMP "A" ^{WHS 186}	HR							38,264.00
2 WASTE DUMP "A"-100 ACRES								
3 AREA OF TOP		456,444 SY	94.3 ACRE					
4 AREA OF SLOPE		462,680 SY	95.6 ACRE					
5 SCARIFY TOP - FLAT AREA		456,444 SY						
6 12 INCHES SOIL ON TOP OF DUMP		152,148 CY						
7 12 INCHES SOIL ON SLOPE		154,212 CY						
8 SEED ENTIRE SURFACE								
9 TOTAL-WASTE DUMP "A" RECLAMATION		.55 ACRE						
10 WASTE DUMP "B"-94 ACRES								
11 AREA OF TOP		237,222 SY	40.7 ACRE					
12 AREA OF SLOPE		238,240 SY	53.5 ACRE					
13 SCARIFY TOP - FLAT AREA		237,222 SY						
14 12 INCHES SOIL ON TOP OF DUMP		65,741 CY						
15 12 INCHES SOIL ON SLOPE		86,080 CY						
16 SEED ENTIRE SURFACE								
17 TOTAL-WASTE DUMP "B" RECLAMATION		.94 ACRE						
18 WASTE DUMP "C"-120 ACRES								
19 AREA OF TOP		344,222 SY	71.1 ACRE					
20 AREA OF SLOPE		238,633 SY	49.3 ACRE					
21 SCARIFY TOP - FLAT AREA		234,222 SY	52.7 ACRE					
22 12 INCHES SOIL ON TOP OF DUMP		124,741 CY						
23 12 INCHES SOIL ON SLOPE		79,514 CY						
24 SEED ENTIRE SURFACE								
25 TOTAL-WASTE DUMP "C" RECLAMATION		.126 ACRE						
26 LEACH PAD-264 ACRES								
27 AREA OF TOP		788,556 SY	162.9 ACRE					
28 AREA OF SLOPE		461,653 SY	91.2 ACRE					
29 12' CLAY CAP ON TOP		262,852 CY						
30 12' CLAY CAP ON SLOPE		147,218 CY						
31 52 CRUSHED ROCK ON TOP		262,352 CY						
32 12' CRUSHED ROCK ON SLOPE		147,218 CY						
33 12' CRUSHED ROCK ON SLOPE		262,352 CY						
34 12' CLAY CAP ON TOP		147,218 CY						
35 12' CLAY CAP ON SLOPE		262,352 CY						
36 12' INCHES SOIL ON TOP		261,851 CY						
37 12' INCHES SOIL ON SLOPE		147,218 CY						
38 SEED ENTIRE SURFACE								
39 TOTAL-BEACH PAD RECLAMATION		.254 ACRE						
40 RINSE BEACH PAD AREA - YEAR								
41 AREA OF TOP		788,556 SY	162.9 ACRE					
42 AREA OF SLOPE		461,653 SY	91.2 ACRE					
43 12' CLAY CAP ON TOP		262,852 CY						
44 12' CLAY CAP ON SLOPE		147,218 CY						
45 52 CRUSHED ROCK ON TOP		262,352 CY						
46 52 CRUSHED ROCK ON SLOPE		147,218 CY						
47 12' INCHES SOIL ON TOP		261,851 CY						
48 12' INCHES SOIL ON SLOPE		147,218 CY						
49 TOTAL BEACH PAD RECLAMATION		.254 ACRE						
50 PROFIT								44,288
51 TOTAL INCLUTING PROFIT:								2,621,318
52								3,742,964
53								3,742,964

006 P02 DEC 18 '96 15:32

3037219298 GRESSTONE

FILE NAME: RECD-2015
 PROJECT: SUMMO CORP., LISBON VALLEY COPPER
 DESCRIPTION: RECLAMATION COSTS
 DATE: 15-Dec-96

THE WINTERS CO.
 TUCSON, ARIZONA
 CAPITAL COST ESTIMATE

	DESCRIPTION	QTY	UNIT	LABOR HR PER UNIT	UNITS	REFI RENTAL	REFI EQUIPMENT	SUBCONTRACT	MATERIAL	EXTENDED COSTS	TOTAL
1	RECLAMATION OF WASHED AREAS										
2	POUND AREA (11 ACRES)	4,852	HR	1.25	1,250					5,136	
3	SEED FERTILIZE POND-12 INCHES SOIL	4,852	HR	1.25	1,250					6,065	
4	P.L.S POND-12 INCHES SOIL	8,229	HR	1.25	1,250					10,286	
5	WATER RUNOFF POND-12 INCHES SOIL	11 ACRE		1.25	1,250					13,337	
6	SEED 3 POND AREAS										
7	TOTAL-POND AREA RECLAMATION									24,353	
8	PLANT & CRUSHER AREA (2.5 ACRES)	41,080	CY	1.25	1,250					51,350	
9	SEED 12 INCHES SOIL	25.5 ACRE		1.25	1,250					4,450	
10	SEED ENTIRE AREA										
11	TOTAL-PLANT AREA RECLAMATION									55,788	
12	PLANT ROADS (40 ACRES)	192,889	SY	1.25	1,250					18,578	
13	SCARIFY	64,296	CY	1.25	1,250					80,370	
14	CONTOUR	67,512	CY	1.25	1,250					84,389	
15	SEED ENTIRE AREA	60 ACRS		1.25	1,250					6,941	
16	TOTAL-HALL ROAD RECLAMATION									216,291	
17	POWER LINE CORRIDOR-64 ACRES										
18	TOOTE-POWER CO. WAS REQUESTED THE POWER										
19	LINE REMAIN OPEN.										
20	TOTAL-HALL ROAD RECLAMATION										
21	POWER LINE CORRIDOR-64 ACRES										
22	TOOTE-POWER CO. WAS REQUESTED THE POWER										
23	LINE REMAIN OPEN.										
24	TOTAL-HALL ROAD RECLAMATION										
25	WAS 31 ACRES	64 ACRE		N/C							
26	RE SEED 40 ACRES	40 AC									
27	RE SEED 40 ACRES	40 AC									
28	2 TOTAL-RESEED SOL. STOCKPILE AREAS										
29	WAS 1,8016										
30	FENCE & BEAMS AROUND OPEN PITS										
31	FENCE AROUND SENTINEL PIT 1	2,621 LF	LF	1.25	1,250					3,276	
32	FENCE AROUND SENTINEL PIT 2	2,113 LF	LF	1.25	1,250					3,300	
33	FENCE AROUND CENTENNIAL PIT	3,987 LF	LF	1.25	1,250					3,220	
34	FENCE AROUND QTG PIT	7,411 LF	LF	1.25	1,250					4,763	
35	TOTAL-PIT FENCES									22,239	
36	NOTE-COST FOR BEAMS SHOT SHOWN AS THESE ARE TO BE BUILT DURING PLANT CONSTRUCTION PHASE										
37	FENCING MATERIAL WILL BE RECYCLED FROM THE EACH PTD AREA										
38	SURFACE DRAINAGE DIVERSION DITCHES										
39	LEACH PAD AREA	7,473 CY	CY	1.25	1,250					9,341	
40	PLANT AREA	1,595 CY	CY	1.25	1,250					1,991	
41	CRUSHER AREA	1,810 CY	CY	1.25	1,250					2,263	
42	DUMP AREAS	13,665 CY	CY	1.25	1,250					17,085	
43	TOTAL-DRAINAGE DIVERSION DITCHES									30,682	
44	WORK IS FOR REMOVING OVERHANG SEDIMENT STRUCTURES.										
45	TOTAL	50								420,521	
46	PROFIT	51								24	
47	TOTAL INDIVIDUALS PROFIT	52								630,511	